Sacred Groves: Sacrifice and the Order of Nature in Ancient Greek Landscapes

Rod Barnett

ABSTRACT The sacred groves of ancient Greece were designed for the specific purpose of linking the sacred realm of the gods and the profane world of humans. The terrain occupied by a grove was carefully delineated as separate and different from the landscapes of ordinary life. Here, special rituals took place that reestablished the connection with untrammeled nature that human beings had lost through the work required by animal and plant husbandry. One of these rituals was animal sacrifice, a practice that turned the fruits of human labor into a gift to the gods whose natural realm is chaotic and wild. The sacred grove is therefore a threshold space, a portal to the domain of disorder. As such, it shares characteristics with nonlinear systems that require disturbance in order to remain emergent and transformative. This essay advances a reading of sacred groves as nonlinear landscapes that permit the passage of the sacred into human systems by means of the loving and transgressive gift of sacrifice.

KEYWORDS Sacred groves, sacrifice, nonlinear systems, disturbance

This essay explores the proposition that the sacred groves of ancient Greece performed their religious functions in ways that accord with the findings of nonlinear dynamics. It is part of a larger critical/historical enquiry that seeks to reinscribe these undervalued landscapes with meaning: as profound places of experience and sacred memory they provide humans with intimate links both to the natural world and a world conceived as "wholly other." The principle construct for this study is that many historical landscapes exhibit what Prigogine calls the "dissipative structure" of open systems. In other words, the primary significance of these landscapes can be traced to the paradoxical relationship between structure and order on the one hand and dissipation, or expenditure, on the other. In classical nineteenth-century thermodynamics, the dissipation of energy was regarded as waste. Prigogine changed this view by showing that in open systems dissipation becomes a source of order. Dissipative structures not only maintain themselves in a stable state far from equilibrium, but may even evolve. When the flow of matter-energy through them increases, they may go through new instabilities and transform themselves into structures of increased complexity.

This phenomenon is visible not only in sacred groves, but also in many other culturally charged landscapes. Close study of historical landscapes and period texts discloses signs of attentiveness to becoming, difference, and multiplicity within even the most canonical of sites, and demonstrates that landscape architecture has a long tradition of nonlinearity. Recent scientific advances have shown that nature, far from being an orderly system of things and events, is actually chaotic and disordered. Nonlinear dynamics, a branch of mathematics, has demonstrated that natural or open systems are not continually striving for a state of equilibrium but actually need to move to conditions that are far from equilibrium in order to remain emergent and transformative. Natural systems, such as ecosystems, require disturbance or some kind of turbulence in order to move towards greater complexity. In the case of many human systems, it has been surmised, transgression may provide this disturbance (Bataille 1988).

Because questions about the mysterious nature of the sacred for ancient Greeks cannot be answered with available evidence, they must be pursued through new frameworks for speculation. My analysis of sacred groves is not simply an empirical history of how sacred groves developed, or how they constituted sites of ritual or worship, although there is some of that here. Instead, the work provides a conjectural interpretation of the operations of the grove. Wherever possible I have pursued my theme through content analysis of period texts and archaeological evidence, intensified by my own philosophical and psychological interpretations of the primary material. My purpose is to provide an alternative account of sacred groves as material disclosures of difference and emergence in the context of contemporary Greek ideas of nature, and practices of terrain modification. After all, the sacred wood is, as Harrison says, "...a place where the logic of distinction goes astray." It is a religious terrain in which things both come together and are forced apart. Its rituals, for instance, are characterized by a conjunction of ritual slaughter—animal sacrifice—with a countermanding reverence and gratitude towards the fruits of agriculture and husbandry that not only accompanies but conditions the ritual act.
The timeframe for this interpretation begins, roughly, with the Homeric texts (Odyssey, Iliad, and Hymns attributed to Homer, 800 BCE) and ends with the Peloponnesian War (431 BCE) and the rise of philosophy in the classical period. These three centuries witnessed the movement from the geometric to the archaic period, the development of the polis, the flourishing of mythic narrative, and the advent of democracy. It is during this time that the practice of ritual sacrifice thrives in the societies of ancient Greece. Sacrifice should be understood as an act of transgression and an act of atonement and goodwill. Without both, it cannot perform its sacramental function. As the religiously charged settings for sacrifice, planted groves permit the passage of the sacred and acquire their primary status within the social and religious texture of Greek life.

WHAT ARE SACRED GROVES?

Sacred groves—alsos in ancient Greek—are religious sanctuaries (Liddell and Scott 1996). They are often but not always associated with temples; those that are have provided most of our archeological evidence, because temples attract archeologists. The most holy spot within the alsos is the altar at which sacrifices take place. Some altars may not have had groves or temples, and not all temples had groves. There are many different geographies with respect to sanctuaries, some occurring at urban sites (Pergamon), others outside towns (Lykeion), and yet others deep in rural areas (Sounion) (Figure 1). Evidence exists for groves being associated with each of these types of sanctuary (in Greek, temenos), all of which are to be understood as sacred terrain set aside for a divinity. Sanctuaries are not the only means by which Greeks could experience the sacred, however. Ritual also occurred at wilderness sites such as caves and springs that were neither temenos nor alsos. Furthermore there are many instances of single trees being regarded as sacred, such as the famous oak of Zeus at Dodona. Even roads or pathways could be sanctified. The road from Athens' Dipylon Gate was flanked by tombs and shrines, and there were sacred gardens to Aphrodite and Pan full of flowers and shrubs, but without trees.

Archaeologist Darice Birge's definition of alsos is quite simple: "a stand of trees in a religious context, with or without associated structures such as altars or temples." Such groves "are differentiated from their sur-
rounding territories by visible boundaries and/or special regulations.” Social prohibitions often determined the uses to which groves were put. While they clearly served different purposes in different situations, one of their most widespread functions was as *asyla*. A divine law of protection guaranteed safety and unrestricted access to sacred groves for people fleeing danger. Breaking this law was an especially atrocious crime (Herodotus 6.78.80); Kleomenes’ burning of some Argives who had sought sanctuary in a grove sacred to the hero Argos eventually caused his death.

Apart from its asylum function, the sacred grove often had gendered rules of entrance, particularly during festivals. Only women were allowed in the groves of Hera at Aigion and of Demeter at Megalopolis, and only men could enter the groves of Ares at Geronthrai. Animals could not be stabled or pastured in groves (though wild deer could hide from hunters in them), even though they might have been the only place where shepherds could find them fodder or shelter. In some cases, only initiates were allowed entrance, and in others, only priests, as in the grove of Artemis near Pellene (Birge 1982, 226). Generally, then, sacred groves marked a territory that had connotations of escape, inviolability, protection, and restriction from the outside world—the word *temenos* comes from a root meaning “cut off” or “separate.” And yet the grove served not only religious duties but also provided practical functions such as shade, coolness, and sometimes even fruits and other arboreal products (Figure 2).

There are two main types of treed area associated with terrain devoted to worship and sacrifice. The first is the naturally wooded tract of land which is understood as propitious or holy, and which attracts cult activities, perhaps an altar, and finally a temple. The second is a designed landscape deliberately planted to accompany a temple or altar, and which defines and embodies *temenos*. While the archaeological evidence for designed sacred groves is still relatively meager, particularly when compared to the evidence for temples, the dis-
ciplines of landscape archaeology and archaeobotany have over the last twenty years developed considerably. Osbourne (1987), Rackham (1990) and Carroll-Spillecke (1992) have described physical aspects of ancient Greek landscapes uncovered by archaeological projects, and their analyses can be matched against literary references. Excavated groves include the cypress at the temple of Zeus at Nemea; the sanctuary of Hephaestus above the agora in Athens, where tree pits have been found arranged in lines either side of the temple; the gymnasias of Plato, Aristotle, and Epicurus in Athens, some of which have been replanted; and the temple of Apollo Hylates at Kourion in Cyprus, where excavated channels and pits show clearly where trees were planted. There are differences in layout, however, that suggest that different planting schema could well have existed at different times. In some cases, the trees obviously refer to a temple, as at the Athenian Hephaesteum, and therefore may be considered a sacred part of a sacred environment. In others, the groves do not reference structures; for example, at Kourion they appear to have been the main feature of the enclosure, suggesting sacrality in themselves. It would seem to be the case that, as temple construction advanced, deliberate planting took place, often in waves as sanctuaries grew in size and as trees died or were destroyed. Gods were sometimes invoked as the designers, as in Pindar's description of Apollo (Fr. 51a): "Roaming, he traversed the land and the ... sea, and stood on the steep look-outs of the mountains, and sought ravines, laying the foundations of groves" (Birge 1982, 114).

Classical literature provides a critical counterpoint to the archeological evidence. There are several well-known allusions to sacred groves in Homer. For instance, in the Iliad a hero plants a grove of trees to commemorate a fallen comrade, a site in Gargarus has a "fragrant" altar accompanied by a grove of trees, and a fountain is mentioned which has "an altar to the nymphs" and "a grove of water-loving poplars planted in a circle all round it." Homer also refers to cases of sacred groves associated with specific gods such as "Holy Onchestis with its famous groves of Neptune," a "sacred grove of Athena" in which Odysseus prayed and the grove outside the city of Phaecia, which Odysseus passes on his way to meet Alcinous. "You'll find black poplars around a meadow and a fountain," Nausicaa tells him when she gives him directions to her father's city, "all dedicated to Athena."

A detailed description occurs in Euripides' play Hippolytus when Hippolytus petitions Artemis through the medium of her statue (2.112–120):

I have brought you this green crown, goddess, fresh from the scene
where I spliced its flowers together,
a meadow as virginal as you are,
where no shepherd would think it wise

to pasture his animals, a perfect field

no iron blade has cut down.

But there are many other sources. Pindar, for instance, describes Herakles as the first to plant a temenos with trees at Olympia, and the groves of the fourth- and fifth-century gymnasia outside Athens—Academy, Lykeion, Kynosarges—are described in a number of texts (Aristophanes, Plato, Pliny, Strabo, for instance). Throughout the literary record we find references to shrines, irrigation systems, and productive gardens, many of which are financed by wealthy statesmen.

Some of the most enticing descriptions of sacred groves come from Pausanius. His references to numerous sacred woods confirm their association with specific deities such as Apollo, Artemis and Pan, and sometimes explain why certain sites became sacred. For instance, Pausanius describes a prophecy that Artemis would show a homeless people where to settle. When they make landfall a hare appears. They follow it and it disappears under a myrtle tree, which is where they decide to build their city. "They still worship that very tree, and give Artemis the title of Saviotir." Ciiven the archaeological, literary, and material evidence, sacred groves indubitably exist in Greece and its colonies in the period 800 BCE to 200 CE.
THE LANDSCAPES OF ANCIENT GREECE

Rural Greeks lived their daily lives in a terrain forged by three types of agrarian production: pastoral (grazed territories), agricultural (cropped fields), and horticultural (orchards and productive gardens). The basic geographical unit was the deme, a territory that included both the town and the productive countryside that supported it with food. In ancient Greece, these were not separate worlds. The political center itself was permeated by the country at every level. Osbourne observes that “the countryside absorbs the time and energies of the majority of [the town’s] inhabitants, directs its politics, and drives its calendar of activities.” Importantly, the periodicity of the religious year is also driven by the rhythms of the cultural landscape.

In the countryside, the annual pattern of sowing, cultivation, and harvest provided a framework for understanding long durations and uncertain periodicities. The cycle of farm life afforded a model for the transformational qualities of human existence. Religion contextualized these transformations by contrasting the daily labor of farming families with the freedom and capture of the gods. The network of Greek deities provided a logic which had a profound connection to agrarian production. Farms with terraces ordered and domesticated the living landscape by means of agricultural diagrams of stone. Plantations of pines, cypresses and olives surrounded temples and provided sanctuary for devotees of the gods. Fields of grain stocked the ships, productive urban gardens provided nobles with herbs and summer vegetables for their tables, and beyond lay the terrain that pastoralists crossed and recrossed, along the ancient routes of transhumance in daily and seasonal ebbs and flows. It is through the various religious activities associated with agriculture, horticulture, and pastoralism and, importantly, the festivals that celebrate the georgic cycle of the year, that the connection is made from the profane world of laboring humanity to the sacred world of the gods, who are eternal (but can transform at will).11

Just as the polis was not rigidly separated from the cultivated landscape, in archaic Greece the relationship between the domestic terrain of the farm and the “wilderness” was also not sharply marked. Not all classicists agree with this proposition, however. Francois de Polignac (1995), for instance, regards wilderness as conceptually distinct from cultivated terrain. What he calls the “ex-urban” sanctuary marks this distinction and acts as a threshold to a sacred realm, which he identifies with the disordered conditions of wilderness. Landscape archaeologist Forbes, however, argues that “…it is very clear that uncultivated land [in ancient Greece] is not at all unproductive land” (1996, 69). Uncultivated landscapes, he writes, were heavily modified by human intervention, including grazing, fires, military activity, and the management of uncultivated plants such as herbs for cooking. Forbes, however, is speculating about ancient practices on the basis of current land use in contemporary Greece. He argues that many activities occurring on uncultivated land in contemporary rural communities are traditional and would have been practiced in ancient Greece. For some activities, such as harvesting timber and herbs and the use of uncultivated hillsides for bee pasture, it is possible to cross-reference to written records: Diocletian’s tax reforms count uncultivated mountain slopes as potential arable land (1996, 77). I suggest that the disagreement between Polignac and Forbes turns not so much on how the physical terrain is organized or husbanded, but on what might be meant by the term “wilderness.”

THE ORDER OF NATURE

The question is whether Polignac’s insistence on the extrurban sanctuary as marking “the outer limit of the advance of agrarian civilization” is undermined by the quite high possibility that ancient Greek communities put uncultivated land to agricultural use, but stopped short of a direct and persistent cultivation of it. The answer lies in making a distinction between wilderness as an idea and as a place. The sacred grove, accord-
ing to Polignac, is a threshold between the cultivated and the wild, which is why he insists on an ontological difference between the pastoral landscape of the plain (where the people labor) and the neighboring domain of the mountains and forests (where they do not). The ex-urban sanctuary marks a line between the complex of actions and institutions that underpin the cyclic regularity of human life and a "state of disorder" where "beings either spring asexually from the earth or, indiscriminately promiscuous, enter into multiple unions for procreation" (1995, 35). For Polignac, wilderness is another word for nature, which he sees as sacred. But was it for the Greeks? "It is not advisable," philosopher of history Geoffrey Lloyd cautions, "to look for consistencies in the study of ancient concepts of nature." While we may assume "some kind of correspondence" between ideas of nature and ideas of the divine, generalizations should be avoided since it is impossible to regularize across different Greek tribes just what the significance of this correspondence was, how it was made manifest, whether it was always upheld or even the degree to which it was contested.

Such an association may be found in Homer and Hesiod (whose works have been dated to around 800 BCE) where any sense of a concept of nature as an order separate from the sacred is missing. In both cases—Hesiod's *Works and Days* and Homer's *Odyssey* for instance—they are blended. The regular and the irregular, the strange, the unique, the monstrous and the ordinary all find their place in the overall story of ancient Greek life. If the farmer is to have a good harvest and the fisher a good catch, weather, husbandry, and diligence are important, but they should just as diligently regulate their behavior correctly in relation to the gods who are, as it were, in nature.

Geographer Clarence Glacken is less circumspect than Lloyd. Drawing on Plato and Aristotle he insists that the ancient Greeks saw nature as synonymous with "the unity and harmony of the cosmos"—a religious proposition they based on their observations of regularity in heavenly phenomena such as the phases of the moon, seasonal periodicity, and the daily revolution of the sun. In fact, he says, "[t]he idea that there is a unity and harmony in nature is probably the most important idea... that we have received from the Greeks."

I will take the position then, that for the Greeks, whose landscapes we are reading here, nature is a complex set of ideas, some of which are religious. Wildness is to be associated with these ideas rather than with a physical terrain. Perhaps wilderness, if it is to achieve physical form as sacred terrain, is best understood as a "wild place" that dramatically punctuates the "finely calibrated scale" that exists between the agrarian landscape and uncultivated territory rather than a place on the other side of this territory. Classical literary accounts of the sacred often suggest that within the vast zones beyond the agrarian plains there were interstitial terrains that held a special meaning because their geomorphological qualities marked them out as different. It was "the unusual, the distinctive, the individual about such places," Horden and Purcell decide, "rather than any practical usefulness" which helped to make them holy (2000, 412). These are the kinds of sites that became sanctuaries, the places of certain gods such as Apollo, Artemis, and Pan.

Towns and agrarian landscapes, then, formed a symbolic and social continuum in archaic Greece, and cultivated and uncultivated landscapes a finely calibrated scale. But a conceptual boundary was drawn between the wilderness of god and beast and social landscapes subject to the regulating techniques of productive pastoralism, cropping, orcharding, and gardening. Polignac (1995) argues persuasively that this is a threshold between open and closed, sacred and profane, and that it is marked typically by a *temenos*. Many such sanctuary sites can still be seen from the ancient towns of Attica, Arkadia and the Peloponnesse. Typically located on one of the foothills at the edge of a plain, looking down over it with a mountain range behind, there is a grove of trees and a temple within them. The *temenos* is particularly conspicuous from the town on the plain where the inhabitants can see it when they
look east. Enclosed by a wall through which a number of roads thread, including a pathway to the temple on the ridge, the town is embedded in the rural landscape that surrounds it (Figure 3).

Such a landscape is typical of demes in the geometric/archaic era. The lowlands and plains of the Peloponnese, Boetia, and Attica became thoroughly humanized during this period; ploughed, planted, organized. Ex-urban temples on the edges of territories—if we are to follow Polignac—mark the outer limit of the advance of agrarian civilization and set it in opposition to the uncultivated domain of the mountains, the forests, and the sea. The city of Argos, for instance, has a temple of Hera on the opposite side of the plain of Argos. In Arkadia, Mantinea's ex-urban sanctuary is the temple of Poseidon in the foothills to the north of the city. Korinth has a Heraion (a sanctuary dedicated to Hera) across the bay on the tip of the peninsula of Mount Gerania that juts into the Bay of Korinth. Great processions regularly took place on the ceremonial pathways that linked these cities with their sacred landscapes.

THE GROVE AS A SITE OF DIFFERENCE

If the grove is part of but different from the landscape continuum, how is this difference marked physically? In order to participate in the multiple realms of sacrality, wilderness, culture, and society, the grove must itself be subject to cultural operations. We might reasonably expect it, therefore, to be deliberately planted in specific ways with specific species. While many holy sites were holy prior to human intervention, they could not become threshold terrains until a reordering of nature took place with the alignment of species according to religious, cult, or ritual requirements. There was, therefore, a transition from natural groups of trees to designed and managed groves. It is quite possible that treed precincts marked sites that were already sacred, but it seems also clear that specially planted groves focused and distilled that wilderness sacrality. It should be noted, however, that some sacred tracts of wooded land found their focus not in the realignment of trees at all, but in the placement of an architectural element such as the altar of Zeus high on a hill at Kuşukkuyu above
the Bay of Edremit in what is now Western Turkey. These altars often developed over time into temples.

There is a case for assuming movement from some kind of tree cult-based reverence of arboreal sites to the motivated arrangement of particular species in particular ways, prior to their development into temple complexes. The connection between ancient tree worship and the development of sacred groves could lie in such simple associations as that of Zeus with the oak tree. The name of Zeus is forever associated with this species, and it could be said that every oak tree in Greece is sacred to Zeus.16 Dodona in the northwest was, according to Herodotus, the oldest Greek oracle. Priests and priestesses interpreted the rustling of its oak tree leaves to determine the future. By Homeric times there were still no buildings on the site and priests slept on the ground in the sacred grove that was already legendary. It is not possible to say for sure if this arrangement of trees was specifically planted. Certainly, it was not until the fourth century BCE that a small stone temple was added to the site (Gothein 2000). By the fifth century BCE, the association of temple complexes with sacred groves had become commonplace, the temples being part of a larger holy terrain. The extent of many sacred precincts was marked out by the tree plantings that focused the sacrality of the place. "The tree," says Burkert, "is more important than the stone in marking the sanctuary" (1985, 85).

That sanctuaries were established at specific landscape locations already regarded as sacred is now generally recognized. Architectural historian Vincent Scully says of the sites occupied by Greek sacred architecture that "...the place itself is holy and, before the temple was built upon it, embodied the whole of the deity as a recognized natural force." Certain landscapes "are described in the Homeric Hymns and many other places as appropriate to or expressive of various gods" (2). The Hymn to Apollo, for example, associates this god with the mountain of Kynthos and, more especially, the island of Delos, which "delights his heart" (Richardson 2003). Indeed combinations of landscape elements, such as mountains, caves, and springs, are characteristic of Greek holy places. The question is to what extent Greeks prior to the archaic period (when permanent temples began to be constructed) marked sites already considered holy by deliberate plantings of specific tree species. If sacred groves were planted as holy site markers prior to the permanent construction of temples, then they must have been planned and organized. If they continued to be planted in association with sanctuaries long after temples had been constructed on the sites, these plantings would have had specific characteristics. The selection and arrangement of trees at sacred sites would have been based on religious and social considerations as well as horticultural conditions. Just what these arrangements were, however, is particularly difficult to ascertain. The sanctuary at Nemea, for instance, where the sacred trees have been replanted, was famous for its cypress grove dedicated to Zeus. A number of European visitors to Nemea in the nineteenth century remarked on the grove and its organization, describing the cypresses as encircling or at least enclosing the site.18 However, while archaeologists have found plant pits to the east of the temple, their location does not suggest an enclosing ring of sacred trees as they are clustered between the temple and the xenon (Figure 4).

There are many other examples of tree-god relationships. Apollo is associated with the laurel and is often depicted in vase paintings with a laurel wreath on his brow. One of Athena's attributes is the olive branch—she planted twelve olive trees on the Athenian acropolis after her victory over Poseidon. Dionysus bears a thyrsis with a pine cone—his other botanical attributes are the vine and the ivy. A possible consequence of these associations is that sacred groves dedicated to particular deities might at least include, if not comprise solely, the trees that express their qualities and, therefore, the sites at which specific gods were principally worshipped, such as Apollo at Delphi and Corinth, Athena at Athens and Tegea, and Dionysus on Parnassus, can be expected to have been planted with laurels, olives, and pine trees respectively. It is almost impossible to demonstrate this for three reasons:
first, the archaeological investigation of sacred groves has barely begun; second, the tree species mentioned grow all over southern Greece and are today found at each of the sites mentioned above, both as wildings and as designed plantings; and, third, eyewitness accounts are unreliable since in even one lifetime tree plantings can change considerably. For instance, when Strabo (64 BCE-23 CE) went to the temple of Poseidon at Onchestos, he expected to find a sacred grove described by Homer in the *Iliad* as of wonderful beauty. Instead, he found a place bare of trees and greenery altogether. About 180 years later, however, Pausanius visited and discovered a grove of considerable height. He concluded that these were the same trees Homer had so lovingly described.

The testimony of Pausanius supports Polignac’s theory of ex-urban sanctuaries. A number of times Pausanius alludes to sacred groves planted on the margins of cities. For instance, he mentions a sanctuary of Pan at Lykaios with a grove of trees around it (8. 37.10), and the sanctuary of Demeter at Phygalia where “there is a sacred grove of oaks around the cave, where cold water
springs out of the ground" (8.42.11–12). He also describes a grove of Karneian Apollo near the site of the ancient city of Trikolonoi: "there is still a sanctuary of Poseidon left on a hill with a square statue, and a sacred wood growing around the sanctuary" (8.34.6). Pausanius provides substantiation for the proposition that the *temenos* on the ridge or tucked in the bowl of hills is a place where it is possible to cross from one world to another. This site of doubling, or passage, opens in two directions at once. The sacred grove, carefully and deliberately planted with particular species, such as palm, pine, cypress, and oak, acts as a gateway between a realm where natural forces are manipulated and controlled, and an infinite and multiple domain where nature simply takes its course (Figure 5).

**THE SACRED**

Historians and archaeologists continue to uncover empirical facts about the early history of the sacred in Greece. The presence of grave goods and sacrificial companions provides evidence of a ritual acknowledgement of the early Greeks' participation in nature's cycles of birth, life, death, rebirth. And yet, if we want really to understand and account for a structure of feeling, as opposed to a social or material history, we must attempt an interpretation of the psychic diffusion of emotional experience throughout a complex, distant world about whose affective dimensions we can barely guess.

It may help to consider the paradoxical relationship between the concepts of unity and difference that characterized Greek philosophy as it emerged from myth. Parmenides (c. 515–445 BCE) argued that reality is One and that difference is illusory. Heraclitus (7–460 BCE), the "philosopher of flux," averred the contrary, that everything changes all the time, and that even what we call permanent is simply an example of change in slow motion. Pre-echoes of this codification of cosmic paradox can be discerned in the concepts of nature,
the behavior of the gods, and the functions of sacred groves constructed by Greek tribes centuries before the presocratic philosophers. The ancient Greek concept of the sacred would seem to involve the figures of One and Many as a dialectic, each of whose terms contains the other: a relational interpretation of unity and difference to which the metamorphic qualities of the gods attest. The ancient Greek experience of the sacred, I suggest, is an experience that is simultaneously an ecstatic immersion in the unity of nature and an annihilating separation or declension from the cosmic holism that we so often associate with Greek thought. This makes of the sacred grove a charged terrain animated by the all-consuming ambiguity and aequivocat of the Greek experience of the sacred.

Many scholars have emphasized the equivocal nature of the sacred. Walter Burkert analyzes the Indo-European word for sacred, hagnos, as opposite to, but entailed in miasma, which signifies a disruption or dislocation of normal life, a defilement of normative social codes (Burkert 1985, 78). Mythographer Mircea Eliade, too, emphasizes the contrast between the sacred and the more generalized profane. He argues that "the first possible definition of the sacred is that it is the opposite of the profane" (1959, 10). Anthropologist Emile Durkheim also puts this difference between the sacred and the profane at the center of his analysis of religious life. "In all the history of human thought there exists no other example of two categories of things so profoundly differentiated or so radically opposed to one another" (1915, 53). Differentiation, then, is at the heart of the relation between sacred and profane for, as Durkheim says, "the sacred thing is par excellence that which the profane should not touch, and cannot touch with impunity." But, since the sacred flows into everything that approaches it, it must be kept within its own bounds. Precisely because it is a source of instability, it is only any good if it is kept at a distance.

Scholars following Durkheim, Burkert, and Eliade have more closely identified miasma with hagnos. Philosopher René Girard, pushing the notion of the sacred as a principle of differentiation much further, sees the sacred as both the source of, and deliverer from, instability, disruption, and disorder—hagnos and miasma. For him it is the fundamental principle of differentiation in human society. If the difference between the sacred and the profane is absolute and irreducible, it follows that, apart from that differentiation, there is only unnamable, unspeakable undifferentiation. The sacred, according to Girard's account, is a purity, but a purity which generates miasma, and is free of it even though it creates it. Roger Caillois also emphasizes the ambiguity of the sacred. It is both pure and impure, he says, and it "simultaneously provokes [in the believer] desire and fear... the fear that is his undoing and the hope that is the vehicle of his salvation." Twin poles of a "dreadful domain," defilement and sanctity form a "sacred dialectic" whose foremost ambiguity tends to resolve itself into antagonistic and complementary elements to which can be tendered, respectively, feelings of awe and aversion and feelings of desire and fervour. The word sacred itself incorporates the ambiguity. It is derived from the Latin root sacer to which Webster's assigns the double reference of holy and cursed, the latter in particular being its archaic meaning.

As noted earlier, hagnos is not completely to be distinguished from physis, or nature, nor wholly identified with it. The mysterium tremendum that Rudolph Otto (1926) calls "the feeling of terror" before the sacred, is a much more numinous experience than that of nature, for the sacred is ganz andere, "wholly other." Eliade says, "It is like nothing human or cosmic... It always manifests itself as a reality of a wholly different order from natural realities" (1959, 10). The Greek gods, moreover, represent a modality of the sacred that reinforces the profound separation of mortals from immortals and places human beings strictly within its ambivalent condition of being part of nature and yet separate from it. Humans share with plants and animals their "closedness from the open" and are differentiated from these species by their ability to suspend their animality and open a "free and empty zone" which is designated as sacred, an ability predicated on their separation from both nature and the sacred. Separation and difference...
would seem, then, to be important themes of the sacred, as much as unity and wholeness.

In emphasizing the pattern of differentiation that these writers have found in the notion of the sacred, it might be thought that I am suggesting that Greek religious experience may be defined by this idea. This is not the case. The Greek word *cosmos* has connotations of making, and making is the introduction of order. *Cosmos*, in Homer, has been regarded as "an unnamed standard" by which things were judged as well-ordered or not. Discussing its etymology, Glacken concludes that *cosmos* refers to "... any arrangement or disposition of parts which is appropriate, well-disposed and effective ..." (1967, 17). So strong was the idea of the One that Greek philosophers, medics, and astronomers went to considerable lengths to accommodate observations of irregularity in nature with the theory of unity.

The religious context of sacred groves is a complex field of alternative readings and layers of dissonance. As a memoria! landscape, visited regularly on religious occasions over a vast span of time, the sacred grove cannot be assumed to have fixed meanings. Instead it should be understood as providing a broad physical framework that helped shape the communal experience of the sacred. The qualities of separation and difference that contribute to this experience, then, must be contextualized within the shared (if diverse and unstable), persistent, restorative, and cumulative sense of community participation and social equilibrium that worship and ritual in the grove provided—even though the intimate experience of the sacred may be, for the individual as much as for the collective, incomprehensible, intractable, disequilbirious and, ultimately, transgressive.

In Greek myth there is a great deal of turbulence and disrupting of ordered systems. The marriages of Zeus, for instance, serve especially to break down or disturb the existing situation. Zeus ate his wife Metis so that she could not give birth to a child that would supersede him. And only by committing adultery against his third wife Hera did he bring forth so many of the gods that eventually became Olympians. As with Zeus, so with the other gods. Ovid’s *Metamorphoses* is full of tales of emergence, transformation, and difference, and his fictive world is a continual cycle of disturbance of pre-existing orders. Other, quite explicit literary references to sacred groves also testify to the role of interference in the quotidinan:

And two groves are shown, one of Argive Hera and the other of Aetolian Artemis ... in these groves wild beasts become docile and the deer travel in herds with wolves, and submit to humans’ approach and caressing, and ... those animals pursued by dogs, when they seek refuge here, are no longer pursued.

Again and again we find this quality of the transgression of the ordered world (Antoninus Liberalis 40.4): “Britomartis alighted from the ship and fled into the grove where her sanctuary now is, and then became invisible; they called her Aphaia. ... The Aigenetans consecrated the place where Britomartis became invisible, and performed rites as to a goddess” (Birge 1982, 307). Pausanius describes a very specific swerve away from the order of nature (8.37.10): “Beyond what is called the Hall is a grove, sacred to the mistress and surrounded by a wall of stones, and within it are trees, including an olive and an evergreen oak growing out of one root, and that not the result of a clever piece of gardening.”

There would seem to be little doubt, then, that for the ancient Greeks, the idea of the sacred is linked to transgression and difference, ideas which only make sense as part of a complex in which order and harmony also feature.

**SACRIFICE**

It is clear from the writings of many classical authors that the Greek attitude to religious experience took an active, participatory, collective form, rather than an individualistic reflective or contemplative mode. Many days of the year were given over to community festivals, the core reason for which was the search for divine benevolence. At the center of this ritual search was the sacrifice, which was intended to please the gods and
strengthen the links between mortals and immortals. "To sacrifice is to perform a sacred act, or to make something sacred, to separate it from the world of men and give it to the gods" (Pedley 2005, 80). Such ritual killing occurred at many different places and under many different circumstances throughout the year. It took place on the altar, sometimes in a temple precinct, sometimes not, but usually, in either case, within a grove of trees. Whether this siting was regulated by structural or organizational aspects of religious observance is not known. Certainly sacrifice was not limited to sacred groves, but also occurred in sanctuaries that were not planted, in urban temple precincts, and on terrain that was consecrated in ways other than the grove, for instance, burial grounds and shrines.

While it is usually regarded as critical to the Greek experience of the sacred, sacrifice was by no means the only form of religious experience, nor was all sacrifice blood sacrifice. Both the archaeological and the written record tell us that other gifts, such as grains, vegetables, fruits, and cakes were burned at the altar, and unburned gifts were also left on offering tables in the sanctuary. Libation, the pouring of wine, honey, milk, or olive oil onto the altar or ground was a daily ritual among many households. The study of red- and black-painted vases shows that the Greeks experienced the sacred in many ways including dance, mourning, the mechanism of the oracle, divination and purification.

What distinguished sacrifice from these means of contact with the gods was its interruption of other forms of life. While most types of ritual contact with the sacred include some kind of differentiating element that distinguishes both the moment and the place from the ordinary, and acknowledges its singular nature, blood sacrifice involves a death (of ox, cow, pig, sheep, goat, dove, or chicken). It is by means of its death that the creature is separated from the world of men and given to the gods.

One way of reading this practice is to see it in terms of the gift. Philosopher Georges Bataille formulates a conception of gift giving based on the role of potlatch in archaic societies. Whenever "there is an excess of resources over needs," he explains, "this excess is not always consumed to no purpose" (1988, 21). Expenditure, or waste, as exemplified in the potlatch, or gift from one group to another, is actually a way of acquiring power, for giving is "glorious." It demonstrates superiority by making waste itself an object of acquisition. One of the most complete forms of gifting, or the squandering of resources, is sacrifice, which withdraws useful products from "profane circulation" and destinies them as "the accursed share" for ritual consumption. The sacrificial victim is torn away from the order of things and "restored to the truth of the intimate world." According to Bataille, the notion of the gift emblematizes "a transgressive, sometimes violent act" (the Latin root of violent is violare, to violate, meaning to break, interrupt, or disturb). Bataille argues that this transgression is necessary in order to introduce into the profane world of things "the illuminations of sacrality." Whether or not Bataille's theory of a violent and transgressive separation of the animal from the ordered realm of the human accords with accepted conceptions of sacrifice in the Greek world, it does serve to introduce a deeper, more nuanced level of understanding of this practice. It points to a reading of the role of the sacred grove that may explain how it took its place in the network of practices by means of which the Greeks connected to the sacred. If in nature complex systems actually require disturbance or turbulence in order to remain emergent and transformative, then in the case of many human systems transgression may perform this role. Sacred landscapes may provide a connection to the sacred because their spatial organization, disruptive of agrarian and natural environmental systems, enables a certain kind of affective experience to occur. Sacred space, Eliade writes, is an interruption of the homogeneous space of the profane world. "[H]ere, in the sacred enclosure, communication with the gods is made possible" (1959, 26). Here, the suppliants become closest to the gods and experience a different reality. A correlative feature of this spatial experience is its departure from ordinary temporal duration and its integration into mythical or sacred time, a time which does not "pass" but which is ontological,
having a different structure and origin than the temporality of everyday life (69–70). Participants in the ritual within the grove experience a break in profane time and find within the sacred setting time, as it were *ab origine*, *in illo tempore*.

Interpreting sacrifice as an action of disturbance helps explain how sacred groves functioned. In this vital ritual a domesticated animal is led to the altar, water and grain are sprinkled on its head to force it to “nod” assent, and then it is killed. Parts of the animal—the thigh-bones, usually—are burnt as the gods’ portion and the rest of the meat is distributed among those present. By way of this act the participants connect to the divine. If an individual is able to draw near to the gods, says Burkert, “...he can do so because he has ‘burnt many thigh-pieces of bulls,’ for this is the act of piety: bloodshed, slaughter—and eating” (1983, 2). It is in the deadly blow of the axe, the gush of blood and the burning of thigh-bones that the worshipper experiences the god most powerfully. “The realm of the gods is sacred, but the ‘sacred’ act done at the ‘sacred’ place by the ‘consecrating’ actor consists of slaughtering animals” (2). Sacrificial killing, then, is an experience of the sacred in which, in the words of philosopher A.N. Whitehead, the subject enacts “a concern for the world,” which places the object as “a component in the experience of the subject,” with an affective tone drawn from this object and directed towards it (1961, 166–7). Burkert, overly influenced perhaps by Christian tropes of sacrifice, emphasizes the transfiguring nature of the act:

> In the experience of killing one perceives the sacredness of life; it is nourished and perpetuated by death. . . . Whatever is to endure and be effective must pass through a sacrifice which opens and reseals the abyss of annihilation. . . . Sacrifice transforms us. By going through the irreversible “act” we reach a new plane. (1983, 40)

Against Burkert’s dramatic reading, which ignores the ancient Greek concern for the world that I have suggested, it is important to provide the balance that archaeological and literary evidence demands. Sacred groves, as sites of ritual sacrifice, are places spatially separated from the quotidian—by their location often on the margins of territories, by boundary markers, by the nature of the special rituals enacted within them. If they are sites of transgression—which I have also suggested—the transgressive acts that occur within them are deployed with reverence and gratitude towards a nature that is understood as both a cosmic source of order and an unpredictable, unfathomable disorder that confounds and upsets human lives. Which may, after all, be why the Greeks made sacrifice to the gods at all.

Husbandry could wrest order from the chaos of weather, famine, and disease, but it could not intervene in the flow of the cosmos. By labor, humans could provide the materials for sacrifice (domesticated beasts and birds), but they could never do away with the necessity for it. When, in the *Odyssey*, the women “raise their wavering cry” as the axe falls on Nestor’s heifer, they are marking dramatically the action that is at the heart of agricultural activity on which rests the lives of human beings. The carcass sinks down:

> . . . and they disjointed shoulder and thigh-bone,
> wrapping them in fat,
> Two layers, folded, with strips of flesh.
> These offerings Nestor burned on the split-wood fire
> And moistened with red wine. His sons took up
> Five-tined forks in their hands, while the altar flame
> Ate through the bones, and bits of tripe went round.
> (2.362–434)

Athena is propitiated and the meal begins.

The agrarian landscape of ancient Greece lies behind this dynamic of expenditure and consumption: in order to provide the sacrificial animal Nestor must farm. For cities such as Pylos to engage in sacrifice there must be agriculture (but not, significantly, horticulture, which plays little part in this complex of myths). This is why Homer’s stories of Odysseus in the lands of Circe and Calypso rigorously exclude anything to do with working the land, or with arable land insofar as it is worked; for
it is labor that separates man from the immortals. When Odysseus leaves the realm of the fantastic to return to normality and accept the human condition, he goes to work. The productive farm participates in the order of things. Sacrifice in turn disrupts this order and restores the divine, the real.

Bataille’s work on the gift supports the proposition that sacred groves mark a boundary between the acculturated and the wild, between the profane, that is, and a realm variously described—by, for instance, Agamben, Vidler, and Eliade respectively—as open, uncanny or sacred. Hordern and Purcell agree:

Just as the cave is an obvious crossing-point from one world to another, an underworld of sacred pythons, vaporous demons and frightful beings, the sacred grove was also a threshold between the world of everyday life and an otherworldly realm where the regular and distinctive relationships of normal circumstance no longer held. (Hordern and Purcell 2000, 414)

The function of sacred woods as portals to this unpredictable realm is reinforced by sacrifice, a practice which, centered on a stone altar and requiring a ritual procession, ends with a careful and grateful (if inevitably disruptive) ritual act. It occasions the passage of the sacred into everyday life, forging a link to the profound chaos of nature and idealizing the order of things. This connection between order and chaos should be understood in terms of the interanimation of social and religious structures. In geometric and archaic Greece, the uncultivated hills and plains are turned into productive land by immense labor. Through sacrifice, the products of this labor—grain, fruits, animals—are turned into a gift. This gift reestablishes the intimacy with untrammeled nature that has been lost through the work, utility, and “thinghood” that animal and plant husbandry requires (Figure 6).
CONCLUSION

By developing a deeper, more nuanced understanding of the sacred grove, this account offers an exemplification of my larger investigation of nonlinearity in landscape architecture. It is hoped that this reading of the nature and function of groves shows that the conditions of emergence, difference, and disturbance are significant cultural attributes of landscapes, and that analysis of these unique conditions can shed light on how humans experience and construct their physical world. By rescuing these landscapes from their popular conception as simple assemblages of trees with symbolic meaning and reinscribing them as places of luminous experience and collective memory, I hope to elucidate the role of the human subject as an active participant in the dynamic nature-culture systems that we continually pass in and out of, and through which we compose our sense of ourselves. As with sacred groves, so with other landscapes such as pleasure gardens and teeming urban streets: all suggest practices of intervention that spark realignments of “subject” and “object” in the felt experience of life.

NOTES

1. The phrase is Rudolph Otto’s. See Otto (1926).
2. Chemist Ilya Prigogine was awarded the Nobel Prize for his work on dissipative structures.
3. The author has also analysed mediaeval, renaissance and modern urban landscapes as nonlinear. The work of landscape architect Alan Berger on deindustrialized “waste” landscapes is a contemporary exemplification. Berger’s argument (2006) is that waste is natural and that landscape architects should not attempt to stop its production but instead incorporate it, by means of design, into the landscapes of consumption (touristic, economic, telematic) that comprise the modern world.
5. Also see Bataille’s many commentators, for instance in Botting and Wilson (1998).
6. Wilhelmina Jashemski pioneered classical landscape archaeology with her studies of Roman gardens at Pompeii and Herculaneum. Her work has been extended by Kathryn L. Gleason whose garden archaeology at the villa of Horace and the palace of Herod (among other sites) has been published widely. Other important recent landscape archaeology collections include Yamin and Metheny (1996), Everson and Williamson (1998), Ashmore and Knapp (1999), and Dincauze (2000).
7. The archaeological record shows that trees were in many cases arranged in a regular, ordered fashion. The sanctuary of Asklepios in Corinth has tree pits in rows, and some not in rows, planted in three phases between 600–100 BCE.
8. A table of Homeric references can be found in Turner (2005).
9. Birge (1982) includes a comprehensive literature survey that provides an exhaustive list of references by classical authors to sacred groves. All these authors are represented in this survey. In the classical period, there were three gymnasia, all outside the city walls and all associated with a hero or god. The Academy was dedicated to the hero Akodemos, the Lyceum was associated with Apollo, and Kynosarges with Heraklites.
10. The first century Roman writer Pausanius traveled extensively in Greece. His descriptions of temenos and alsos are numerous and detailed.
11. In the last 30 years, a considerable body of research has focused on the centrality of the landscape in Greek cultures. This has been conducted on the one hand by French structuralist classical scholars such as Detienne, Gernet, Vernant and Vidal-Naquet, and on the other by British and American archaeologists of whom Cole, Osbourne, Rackham, and Shipley are representative examples.
12. Polignac’s thesis has been received variably by Anglo-American archaeologists and classical historians. His work should be seen in the context of a structuralist approach to classical history mainly associated with French scholars. Others include Naquet, Detienne, and Vernant, all of whom provide fascinating readings of Greek landscape history which go well beyond the empirical evidence but, in doing so, offer productive and provocative glimpses into the cultural history of the West.
13. The author has visited most of the sites discussed in this article on field trips in 2004 and 2005.
14. A deme is the local district; the village or town and its surrounding countryside.
15. Pausanias visited the Argive Heraion and the Temple of Poseidon outside Mantinea. The remains of these sanctuaries are still clearly visible today.
16. Frazer (1925) still gives the most complete account (in
English at least) of patterns of tree worship. But see also Burkert (1983) and Cook (1914).

17. Both Diana and Artemis were also conceived as oak-goddesses. See Cook.

18. The display at the museum of Nemea includes quotations from many nineteenth-century visitors, including Christopher Wordsworth, Greece: Pictorial, Descriptive and Historical (1859); Richard Farrer, A Tour In Greece (1882); and Charles Henry Hanson, The Land of Greece (1886).

19. From the Latin *aequivocare*, "called by the same name."

REFERENCES


AUTHOR ROB BARNETT is Associate Professor of Landscape Architecture in the School of Architecture and Landscape Architecture at Unitec New Zealand. His main research interest is in nonlinearity and self-organization in landscape architecture. He has written extensively on aspects of nonlinear landscape architecture and has received grants from science and arts organizations to pursue this interest in design projects. His most recent work is a series of historical studies which attempt to show that issues of emergence, transformation, and disturbance—features of self-organizing systems—have often shaped landscape discourse, and continue to distinguish it from other design disciplines.
Copyright of Landscape Journal is the property of University of Wisconsin Press and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.